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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,256	01/23/2002	Tomoru Teruuchi	13740-004001	1933

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EXAMINER

NGUYEN, CHAU T

ART UNIT PAPER NUMBER

2176

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,256

Applicant(s)

TERUUCHI ET AL.

Examiner

Chau Nguyen

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/09/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Preliminary Amendment, filed on 01/23/2002, has been entered. Claims 1-20 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, European Patent Application No. 0586022 A1 and further in view of Ishibashi, US Patent Application Publication No. 2001/0044786.

4. As to claims 1 and 5, Fischer discloses an electronic signature method comprising the steps of:

analyzing a target document to generate a representation having a structure (page 20, lines 20-36);

generating an electronic signature from each structural element of the structure of the generated representation (page 20, lines 20-36);

However, Fischer does not explicitly disclose concatenating the generated electronic signatures into a single signature corresponding to the structure of the generated representation. Ishibashi discloses before creating digital signatures, an original message is divided into units indicated by M_1, M_2, \dots, M_N , executing on initial value and M_1 , and the resulting value is indicated by I_1 , I_1 is then input into a DES encryption unit and is encrypted by using a key K_1 , and the resulting output is designated with E_1 , then executing on E_1 and M_2 , the resulting output I_2 is input into another DES encryption unit and is encrypted thereby outputting E_2 , and encryption processing is performed on all the message units and the final output E_N is used as the digital signature, thus E_N is the result of concatenating the ciphertext (message units) (Ishibashi, page 10, paragraphs [0141]-[0144] and Fig. 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ishibashi and Fischer to include concatenating the generated electronic signatures into a single signature corresponding to the structure of the generated representation. By using a key to encrypt all message units together resulting a digital signature that could be secured against unauthorized use or copying.

5. As to claims 2 and 6, Fischer and Ishibashi (Fischer-Ishibashi) disclose the step of setting a level of attachment of electronic signatures to structural elements of the document, whereby precision of reliability judgment of a document with an electronic signature can be varied depending on the level (Fischer, page 20, lines 20-36).

6. As to claims 3, 9, 11, 19 and 20, Fischer-Ishibashi disclose wherein a rate of coincidence between the target document and the target document with an electronic signature is found from a rate of structural elements having authenticated electronic signatures to the whole structure (Fischer, page 20, lines 20-36).

7. As to claims 4, 7 and 12-15 Fischer-Ishibashi disclose wherein said concatenating step includes inputting the generated electronic signatures in a row (Ishibashi, page 10, paragraphs [0141]-[0144] and Fig. 7: By using a key to encrypt all message units together resulting a digital signature that could be secured against unauthorized use or copying).

8. As to claims 8 and 16-18, Fischer-Ishibashi disclose means for analyzing the structure of the target document to verify the target document having the generated electronic signature (Fischer, page 20, lines 20-36); and

means for analyzing each of the electronic signatures of the structural elements of the target document (Fischer, page 20, lines 20-36).

9. Claim 10 contains similar limitations as discussed in claims 1-9 and 11-20; therefore it is rejected under the same rational.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (571) 272-4092. The Examiner can normally be reached on Monday-Friday from 8:00 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph Feild, can be reached at (571) 272-4090.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau Nguyen
Patent Examiner
Art Unit 2176


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER